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ABSTRACT

This document briefly surveys innovative approaches to hiring and job training which are being used by a number of industrial firms. The author's premise is that there are as many jobs as there are unemployed, and therefore that the basic problem is undereducation of available manpower rather than a need for the creation of new jobs. Industry-sponsored training programs are planned for existing job needs; some government-sponsored programs have become dead ends because they were planned on the expectation of development of new types of jobs before the programs were completed, and the expectation was never realized. Reference is made to training programs run by Western Electric, Wellington Printing Industries, Dupont Company, Polaroid Corporation, Chase Manhattan Bank, Xerox Corporation, and others. (MF)

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New York University

NEW CAREERS TRAINING LABORATORY

NEW CAREERS IN INDUSTRY

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INTRODUCTION

"Why not say we must train a million unemployed
a year for unfilled jobs that already exist?"

Bernard Asbell asks this cogent question in The New Improved American,* an analysis of the profound technological changes taking place in the United States. He was referring to a puzzling American paradox: an acute shortage of workers coexistent with an acute shortage of jobs.

While industry spends billions seeking out and training skilled and professional personnel, it also bears the costs of a high ratio of employee turnover, and helps to cover the huge losses caused to society through massive unemployment and underemployment of the unskilled. The solution of these problems has become an urgent concern of private enterprise in America.

A New Careers program for industry would embody Mr. Asbell's practical point of view. The program's goal: the creation of a rich resource of industry-oriented, highly skilled manpower, the reduction of personnel turnover, and the reduction of unemployment among the low skilled. Its method: expansion of new approaches to manpower recruitment, training and education already being utilized by private enterprise, plus structuring of visible opportunities for promotion, upgrading and horizontal mobility for all workers.

A New Careers model for industry would require:

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*McGraw-Hill, New York, 1965, p.43.

1. Entry level positions in which workers can be immediately productive.

2. Training immediately available and intricately connected to these entry positions.

3. A visible career ladder between these entry positions and higher positions within the job hierarchy.

4. Relevant training and education for higher positions directly available through the job.

5. Sharp integration of training and education, because education is decisive for any major advancement.

6. The responsibility for packaging this training to be undertaken by industry (or by a subcontracted training resource), rather than left to the worker.

NEW CAREERS IN INDUSTRY

Private enterprise has moved to the forefront in the search for new designs that will close the gap between the shortage of skilled manpower and the millions of jobless.

Traditional methods of personnel recruitment are not producing the workers industry needs fast enough and in sufficient numbers, and the cost of the persistent effort to find adequate help is high:

> The New York Times estimates the yearly volume of its help-wanted classified and display ads at $30 million. The Los Angeles Times' volume in help-wanted ads is around $34 million.
>
> An officer of the New York Assn. of Personnel Agencies estimates that 85% of all jobs listed by private employment agencies in New York City include payment of the agency fee by the employer. "Comparable high percentages of fee-paid jobs would be found in other major cities", the officer said. "Many agencies will not even list an opening unless the fee is paid by the employer. It's a worker's market." (The average fee is 10% of the first month's salary.)
>
> A survey of hiring costs paid by 17 firms in the Rochester, N. Y. area (9 manufacturing and 8 non-manufacturing firms) indicates a total over 3 months (June and November, 1965 and February, 1966) of $278,000, with 2/3 of this amount reported by the manufacturing companies, and the balance by the non-manufacturing. Average cost per hire was $222 for manufacturers and $138 for non-manfacturers.[1]

Spurred by the urgency of their requirements, business firms invest heavily in improving the skills and knowledge of their employees with educational and training programs:

> ". . . In 1965 Business Week estimated a total amount of $18 billion and Fortune gave a higher figure of $24 billion (spent by private industry in this area). More recently, it has been estimated that industry spent $17 billion in 1966 in this area."[2]

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[1] Natl. Industrial Conference Board Record, "Hiring Costs", New York, January, 1967.

[2] NAM Reports, Natl. Assn. of Manufacturers, June 19, 1967.

A portion of these amounts was allocated to training programs designed to tap the unutilized potential of the nation's unskilled, underemployed and unemployed labor force. Private enterprise has also begun developing innovative techniques of recruiting and hiring so as to bring the disadvantaged into the labor market.

All indications point to the need for accelerating the drive to produce workers with sophisticated know-how.

> ". . . The importance of developing solutions to unemployment problems is. . . significant in light of projections of job needs to 1975 as prepared by the Bureau of Labor Statistics: while our population will increase by 16%, the labor force will increase by an estimated 20% to include 94.1 million workers."[1]

> ". . . About 230,000 skilled and 350,000 semi-skilled workers are expected to be needed each year to replace those who retire or die."[2]

Following are some manpower needs projected to 1975, based on studies that include patterns of demand and consumer purchasing, technological development, new products and industries.[3]

Millions of Workers Needed by 1975 and Employed in 1964

	1975	1964
Manufacturing	23	17.3
Professional & Technical	13	8.5
Technicians, draftsmen, etc.	1.4	.825
Craftsmen, foremen, etc.	11.5	9
Clerical	14	10.7
Sales	5.6	4.5

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[1] Natl. Assn. of Manufactureres, op. cit.
[2] Occupational Outlook Handbook, Bull. 1450., U. S. Dept. of Labor, 1966-67, pp. 363-364.
[3] Compiled from Monthly Labor Review, March-April, 1965, U. S. Dept. of Labor, reprint 2462.

In the face of such existing and future needs, unemployment is intolerable. Nevertheless, the millions who languish without work continue to burden the economy and scholars, legislators, civic organizations and the press consistently diagnose the frustrations of the unemployed as a leading cause of social disruption.

Concern over the lack of work for the disadvantaged and the ancillary social ills this causes has brought forth many proposals for emergency measures. The business community has become increasingly involved in the discussion and on August 24, 1967 the Urban Coalition (a grouping of more than 800 community and business leaders from throughout the U. S.) called for the creation of at least one million "meaningful and socially useful" jobs.[1]

The intent of the emergency measures suggested is laudable, but such proposals do not focus the problem so directly as does Bernard Asbell's apt phrase: "Why not say we must train a million unemployed a year for unfilled jobs that already exist?"

This approach establishes a one-to-one relationship between industry's demand for skilled workers and the lack of work for

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[1] The term "meaningful" must be defined in two directions. From the employer's viewpoint meaningful work must supply a real need to his organization, help him to make a profit and not be subject to turnover of personnel.

From the employee's viewpoint, meaningful work must do more than pay a wage. It must motivate him to remain on the job by giving him a sense of achievement and dignity, realistic opportunities for steady advancement and the assurance of permanent employment and continuing employability.

Socially useful work produces goods and services, promotes a higher standard of living, provides fiscal revenue, creates stability, and furthers the goals of society. Make-work and dead-end jobs accomplish few of these aims, except temporarily, principally because they do not encourage permanence; do not motivate the worker beyond achieving more than his weekly wage; do not build morale and loyalty.

the unemployed. As noted above, many firms are already actively exploring this direction. However, most programs do not yet go far beyond equipping the workers to function at the semi-skilled and entry level. Until now there has not been a complete step by step linking of training and education from basic skills and knowledge to the highly skilled and middle management positions.

To fully achieve such integration it is necessary to create a practical program that will develop appropriate motivation in the unemployed or underemployed people so that they will not only accept entry level positions, but also become via education and training a reservoir of manpower for the middle line skilled, administrative, technical and even professional positions.

A design for creating a New Careers program in industry for those now unskilled would utilize the availability of training for those thousands of openings as the incentive, the motivational impetus to bring the disadvantaged into the labor force. Xerox Corporation discovered in a recent experiment that good incentives can attract unsuspected numbers of persons ready and willing to work:

> When Xerox announced that skill training and basic education were available in its Project Step-Up, it found among the applicants four times as many persons who did not need the training than those who did, and was able to hire them immediately as regular employees.[1]

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[1]Telephone interview with J. Westbrook MacPherson, ACSW, Manpower Resources Administrator, Xerox Corp., Rochester, N.Y. This would seem to support a statement by economist Charles Killingsworth: ". . . it seems probable that improving employment prospects would tend to pull more people into the labor market and . . . raise the labor force participation rate." (Testimony before Senate Subcommission on Employment and Manpower, Sept. 20, 1963.)

THE NEW CAREERS MODEL

As a solution to unemployment and the dire shortage of skilled and professional workers in the public sector, the New Careers approach was introduced with the passage of the Nelson-Scheuer Amendment in 1966. This legislation provided for the hiring, job-training and education of nonprofessionals by the public service agencies in the fields of health, education and welfare. Under its provisions, persons hired from the disadvantaged community work as auxiliary personnel and can receive time off from their jobs for education and training which will equip them to qualify for more responsible positions. All job classifications within the participating public agencies are to be "careerized", that is redefined and restructured so that employees may move upward gradually toward semi-professional and professional levels as they acquire experience and the necessary high school and academic education and credentials, part of which can be obtained during job time.

> The New York City Board of Education is developing career lines for its teaching personnel. A program of advanced training and education with released time from the job to attend classes will enable entry-level teacher aides (non-professionals hired from the disadvantaged community) to advance to assistant teacher, teacher intern and certified teacher, with more responsibilities and higher salaries at each level. The Board has made special arrangements with local colleges and universities so that the auxiliaries will receive training, education and academic credit.

In the private sector a similar New Careers program could be established with funds contributed by government or private foundations to such firms as desired financial aid. The model would require the following:

1. Entry level positions in which workers can be immediately productive.

2. Training immediately available and intricately connected to these entry positions.

3. A visible career ladder between these entry positions and higher positions within the job hierarchy.

4. Relevant training and education for higher positions directly available through the job.

5. Sharp integration of training and education, because education is decisive for any major advancement.

6. The employer (or a subcontracted training resource) to be responsible for the packaging of this training and making it available to the worker, rather than leaving the responsibility for acquiring training and education up to the individual effort ofeach worker.

In a sense the career incentive program would be directed toward the disadvantaged job candidate who asks, "Why should I take this dead-end beginning job which is boring, dirty and doesn't go anywhere?"

The educational provisions would include making is possible for the employee to acquire basic knowledge (the 3 R's), high school equivalency and industry-related higher education leading to academic degrees. Education would take place, in part, during working hours with time released from the job for attending classes. The employee could advance to semi-skilled, skilled or middle management and administrative positions as he acquired education and training provided by the company, and demonstrated his capabilities.

Funding for firms unable to carry the full costs of participating in the program might be provided by government or private

foundations. Such funding would contribute toward entry level salaries, the special training and education programs, and outside technical assistance on such matters as setting up career line structures, providing supportive services, etc.[1]

Private enterprise would have full autonomy on all aspects of administering such a program, including selection of personnel, development of training methods and educational curricula, choice of outside technical aid, if any is desired, and other components.

INDUSTRY EXPLORES NEW GROUND IN MANPOWER DEVELOPMENT

An interesting experiment in job-training with funds supplied by government and private industry is under way at Western Electric Co., in Kearny, N. J.:

> The U. S. Departments of Commerce, Health and Labor contributed $1 million and ten private companies contributed $340,000 to Western Electric's pilot training project which began operation in January, 1967. Each week 40 persons from the disadvantaged community are enrolled for a rotating 9 week course in basic education and technical skills to qualify for entry jobs in the metal industries. Instructors in basic education are supplied by the New Jersey State Dept. of Education and technical training is imparted by experts from the industry. Trainees receive $41 per week while training, plus $5 per dependent. To date (Oct., 1967) 361 persons have completed the course and 216 have been hired by 70 companies in the Newark area. A spokesman for Western Electric believes that the program will continue permanently, with increasing participation by private firms. He said, "We're telling them 'come on in, the water's fine'".

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[1] Funding arrangements might be worked out on a scale of 90% of the above costs for the first year, with decreasing percentages in the following years, moving on toward 0% at some later point. Such a procedure is followed by public service agencies and government under the New Careers Program in the public sector.

Although the Western Electric project is limited to preparing the trainees to qualify only for entry jobs, this experiment might easily be expanded to include both higher skill training and education to provide the industries of the area with a more specialized source of manpower.

Even middle-size companies can benefit from facilitating educational opportunities to employees, as has been demonstrated by another program in the New Jersey area:

> Wellington Printing Industries of Trenton, N. J. has found it practical and economical to establish an educational incentive program which covers tuition and text-book costs (and tutoring when necessary) for its employees who wish to obtain elementary, high school and college education. At present 10% of the 400 employees participate, and larger enrollments are expected in the coming term. Total cost to the company is considered "negligible". Business Manager Nathan Mayer says: "Some of our men have been able in only two years to acquire a high school diploma and go on to college. Some who started as helpers on a machine crew two years ago now work as foremen. The program has supplied us with permanent, capable workers, and we plan to expand it." He adds: "We put the program into effect not from a desire to perform good works, but as a practical solution to our problem of not being able to find the skilled help we need."

Wellington Industries also decided to discard conventional methods of hiring. Most applicants for entry positions are undereducated and unskilled. Mr. Mayer says: "We decided to adopt the policy of hiring on a first come, first served basis and to eliminate the costly and often meaningless effort spent on interviewing and testing. Although he may be a capable, willing worker, a job applicant from the disadvantaged population may not know how to make a good impression in an interview, and a poor previous work record may indicate only that he had not had sufficient motivation

in the past to remain on a job. Our assumption is that a man who is willing to work can be motivated to become a permanent employee and to upgrade himself for positions that are increasingly valuable to himself and to us."

Although the Bellington employees now attend school on their own time, the company's interest in helping them acquire an education and the visible opportunities for promotion have motivated an encouraging number of workers to take on the often difficult task of attending classes. It is logical to suppose that with time on the job available for education a much larger number of workers would participate.

Other companies make education available to their employees on company time:

> The DuPont Company recently completed its first experiment in providing basic education to its under-educated employees. Language skills were taught on company time to 46 veteran employees who are now eligible to take skill-training courses offered by DuPont. These courses are given to unskilled employees after they have passed an initial period of familiarization in the firm's labor pool. Instruction is on company time, two full days weekly. Trainees study at their own pace, with the help of a supervisor who answers specific questions. After completing the training, the employees work in the division for which they have prepared. Workers can upgrade themselves to perform higher skills leading to foreman positions by attending technical schools of their own time, but with aid from the company on tuition.
>
> The Polaroid Corporation of Cambridge, Mass. offers courses to its employees ranging from basic English and conversational Russian to polymer chemistry. (There is no academic credit given for these courses.)

It would seem feasible in each instance to link the instruction offered so that employees could obtain accredited education and higher skills to qualify them for positions requiring more education and expertise.

The programs developed by private enterprise in working with the under-educated are not limited to heavy or manufacturing industries. Service institutions, such as banks, have also found it worthwhile to reach out to the disadvantaged for recruiting workers and facilitating education to them on the job.

> Chase Manhattan Bank established a job-training program in 1964 for high school students from the hard-core poverty areas. Many of the trainees are potential drop-outs and have police records. Students entering the program at the junior year of high school receive 21 months of basic education and instruction in banking and finance. They attend classes at the bank from 2 to 5 p.m. daily and are paid $1.86 per hour. They continue to attend high school during the morning. After graduation they are hired for entry clerical positions. They may go on to college on their own time, with aid from the bank via its tuition refund program.

Xerox Corporation's Project Step-Up was another valuable demonstration of the response of the poor to a program that links education to employment.

> Project Step-Up was created to explore the feasibility of recruiting, hiring, training and giving remedial education to persons from the underprivileged community. The program was postulated on two basic assumptions:
>
> 1. It is good business, one that enhances the profit-making apparatus.
>
> 2. The company could cut a clear path for itself to a realistic solution for one of the nation's most complex problems: How to open up skilled employment opportunities to the unemployed.
>
> Many of the trainees had police records, bad credit ratings and spotty employment histories. To qualify for training they had to be unemployed or underemployed, receive substantially less than a passing score on the company's regular employment tests and not have finished high school.
>
> The 19 week training period took place during the day-shift working hours. 40% of the time was for classroom instruction, and the rest for work and informal counseling to support the new learning and adjustment to supervision and work rules. Trainees were paid an hourly rate slightly below that for

> regular new employees and were eligible for all company benefits. All the trainees completed the program and qualified for regular employment.
>
> Foremen reported that trainees adjusted well and met all standards. Xerox officials were impressed by the trainees' commitment, their perseverance and their overall reaction to the training, the work environment and to other employees. The regular employees strongly supported the program.

A Xerox spokesman said that the program was economical because aside from the men who were trained, the company was able to hire immediately four times as many applicants who did not need training. Furthermore, he said, the company feels the program paid for itself with the new knowledge gained as to methods of recruiting and motivating disadvantaged employees. These techniques will now be applied by Rochester Jobs, Inc., an organization of 70 firms in the area which will act as a non-profit public service agency to hire, counsel and train workers from the underprivileged community.

Many other firms in the U. S. have found that providing basic education to their employees is a worthwhile investment and that the cost is not high.

> A basic literary program utilizing audio-visual techniques developed by MIND (Methods of Intellectual Development, subsidiary of Corn Products, Argo, Ill.) costs $240 per person, if administered by the firm purchasing the service, or $450 if administered by MIND. Academic escalations of 4 grade levels can be achieved with under-educated adults in 160 hours of MIND's basic education program.

The cost of educating a person for useful work which will convert him from a recipient of relief nto a tax-payer may be surprisingly low:

> A literary program established by the Chicago Board of Welfare demonstrated that teaching reading and arithmetic skills to a person for five years costs less than his relief check for a single month.

Providing educational and specialization opportunities to upper echelon personnel has long been an established practice in private enterprise and many different types of models exist from the outright granting of leaves of absence and fellowships for postgraduate study to intensive short-term courses.

> National Training Laboratories reports that since 1956 more than 3,000 top and middle executives have been sent by their companies to NTL centers in Maine, Florida and Arizona to acquire proficiency in working with the complex human problems inherent in the management process.

> The American Foundation for Management Research has heavy advanced bookings for its Management Learning Center where companies send teams of their top executives for intensive training in problem solving via the team approach.

It would seem that with the tremendous demand for managers and professional personnel forecast for the years ahead, it would be to the best interest of private enterprise to expand its facilities for upward education and mobility so that the potential of the now lesser skilled can be tapped.

> A report by Sibson & Co., New York management consultants, predicts that by 1984 there will be openings for 2 million top executives as compared to 500,000 now.

With careful thought, programs to careerize the industrial job structure from the production level through the management level, via a linking of education, skill training and promotional opportunities, could well redound in enormous benefits to private business and society.

MORE REALISTIC TRAINING

The high cost of personnel turn over plagues private enterprise. Many firms have attempted to solve this problem by fractioning jobs, employing moonlighters or part time workers, all of which solutionshave impermanence implicit in their very nature.

Part of the reason for the excessive turn over rate is the lack of realistic advancement opportunities for the entry worker who has no clear paths to the middle and higher level positions. Careerizing the industry and providing career-oriented incentives including training and education would introduce the necessary motivation both prior to the job and on the job to fill these positions and recruit the necessary employees.

Training programs not directly tied into job opportunities have not been entirely successful. After trainees have been taught skills, it has often been found that there were no jobs available for those skills. In other words, training has not been realistic.

A comment on a government-sponsored training program, recently issued by the AFL-CIO Executive Council illustrates this danger:

> "The government's training program provides for training, with payment of allowances up to two years. Unfortunately, the present emphasis is often on training programs for jobs which are dead end as well as low wage. Moreover, as long as present training allowances remain as meager as they now are, few workers, especially heads of families, can afford to forego the opportunity for immediate employment even at low wages -- particularly if there is no assurance of a job at the end of the training period. The government's programs should be linked with job placement, when training is completed. . ."[1]

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[1] Statement on the Urban Crisis, mimeographed, Washington, D.C., Sept. 12, 1967.

It appears logical that private enterprise is especially well suited to train and educate workers, since it knows exactly what positions must be filled and what is needed to fill them. In the words of the National Association of Manufacturers:

> ". . . we should realize that the goals of an effective manpower policy should be to develop a more effective American work force; to create jobs which utilize abilities, and to match people and jobs efficiently. . . Industry has not only the expertise to achieve superior results, but it also has the vital interest in full utilization of human resources."

With the training undertaken by industry as part of a career-ized program, not only would trainees be more precisely matched to available openings, but would also be immediately productive and would know that as they improve their skills they can step into more rewarding jobs.

As we have seen, many segments of a career incentive approach already exist in the creative projects undertaken by private enterprise. An integrated New Careers Program for industry would package advantageously techniques for recruiting the workers and providing motivation via skill training, education and clearly structured upgrading opportunities to create new sources of manpower, reduce labor turnover and combat unemployment.

There are a number of additional gains from a New Careers program in the private sector: Workers will be able to move up ẁn their own industries as well as acquire training enabling them to move to other industries and to the public sector if they so desire.

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[1]NAM Reports, June 19, 1967.

The program will provide new taxpayers and consumers, thus increasing aggregate demand; it will reduce welfare expenditures.

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